

ABSTRACT

A force provider (232A) for a stage assembly (220A) includes a provider housing (238A) and a piston assembly (240A). The provider housing (238A) defines a piston chamber (344), and includes a first beam aperture (352F), a first cylinder aperture (350F) that is in fluid communication with a fluid at a first pressure and a spaced apart second cylinder aperture (350S) that is in fluid communication with a fluid at the first pressure. The piston assembly (340) includes a piston (356) positioned in the piston chamber (344), and a first beam (358F) extending through the first beam aperture (352F). The first beam (358F) is secured to the piston (356). The piston (356) moves along a piston path (462). At a second piston region (462S) of the piston path (462) the piston (356) is positioned between the cylinder apertures (350F)(350S).